

PTO/SB/08a 07-06)

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Substitute for form 1449A-PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

APPLICATION NUMBER	10/776,881
FILING DATE	02/11/04
FIRST NAMED INVENTOR	Willson et al.
Group Art Unit	1762
Examiner Name	Unassigned.
Attorney Docket Number	PA84-26D27

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Name of Patentee or Applicant of Cited Document	Publication Date MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
EC	F1	5,110,514		Soane	5/5/1992	
	F2	5,259,926		Kuwabara et al.	9/9/1993	
	F3	5,512,131		Kumar et al.	4/30/1996	
	F4	5,545,367		Bae et al.	8/13/1996	
	F5	5,776,748		Singhvi et al.	7/7/1998	
	F6	5,948,470		Harrison et al.	9/7/1999	
	F7	6,218,316	B1	Marsh	4/17/2001	
	F8	6,355,198	B1	Kim et al.	3/12/2002	
	F9	6,035,805		Rust	3/14/2000	
	F10	5,956,216		Chou	9/21/1999	
	F11	5,820,769		Chou	10/13/1998	
	F12	6,916,584	B2	Sreenivasan et al.	7/12/2005	
	F13	2003/0062334	A1	Lee et al.	4/3/2003	
	F14	6,932,934	B2	Choi et al.	8/23/2005	
	F15	6,849,558	B2	Schaper	2/1/2005	
	F16	6,964,793	B2	Willson et al.	11/15/2005	
	F17	2006/0076717	A1	Sreenivasan et al.	4/13/2006	
	F18	2006/0077374	A1	Sreenivasan et al.	4/13/2006	

Examiner Signature

Date Considered

9/29/07

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Substitute for form 1449A/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;"><i>(use as many sheets as necessary)</i></p>				Complete if Known	
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FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document/BG			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Office	Number ³	Kind Code ⁴ (if known)				

EC	F21	WO	87/02935		Long et al.	5/21/1987		
	F22	JP	1-196749		Matsumoto et al.	8/8/1989		
↓	F23	JP	02192045		Mineo et al.	7/27/1990		

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

EC	F24	FEYNMAN, There's Plenty of Room at the Bottom, 12/1/1959	
	F25	XIA ET AL., Soft Lithography, Angew. Chem. Int. Ed., pp. 550 - 575 1/1/1998	
	F26	NGUYEN, Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography, The University of Texas at Austin, pp. 1 - 111 8/1/2001	
	F27	Abstract of Japanese Patent 02-92603, 8/12/2004	
	F28	Abstract of Japanese Patent 02-24848, 1/26/1990	
	F29	GEHOSKI ET AL., Indium Tin Oxide Template Development for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2005	
	F30	NORDQUIST ET AL., Image Placement Issues for ITO-based Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B, pp. 695-701 3/1/2004	
	F31	DAUKSHER ET AL., Characterization of and Imprint Results Using Indium Tin Oxide-Based Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 20(6), pp. 2857-2861 11/1/2002	
✓	F32	COLBURN ET AL., Dissertation for the Degree of Doctor of Philosophy, Step and Flash Imprint Lithography: A Low-Pressure, Room-Temperature Nanoimprint Lithography 8/1/2001	

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				Group Art Unit	1762
				Examiner Name	Unassigned
				Attorney Docket Number	PA84-26D27
Sheet	1	of	2		

U.S. PATENT DOCUMENTS						
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EC	E1	5,669,303		Maracas et al.	9/23/1997	
	E2	5,670,415		Rust	9/23/1997	
	E3	5,855,686		Rust	1/5/1999	
	E4	5,948,219		Rohner	9/7/1999	
	E5	6,873,087		Choi et al.	3/29/2005	
	E6	2004/0250945		Zheng et al.	12/18/2004	
	E7	2005/0037143		Chou et al.	2/17/2005	
	E8	2005/0082253		Cherala et al.	4/21/2005	
	E9	3,757,846		Herman, Jr.	8/11/1973	
	E10	4,512,386		Haller	4/23/1985	
	E11	6,900,881		Sreenivasan et al.	5/31/2005	
	E12	6,908,861		Sreenivasan et al.	6/21/2005	

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Sheet	2	of	2	Attorney Docket Number	PA84-26D27

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cita No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EC	E13	APPLICATION NO. 11/126,948, naming inventors Choi et al., entitled Formation of Discontinuous Films During an Imprint Lithography Process, filed 5/11/2005	
	E14	APPLICATION NO. 11/127,041, naming inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Processes, filed 5/11/2005	
	E15	APPLICATION NO. 11/127,080, naming inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	

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		Examiner Name	Unassigned		
		Attorney Docket Number	PAB4-26D27		

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FL	C1	4,731,155		Napoli et al.	3/16/1988	
	C2	5,429,848		Halsma et al.	6/20/1995	
	C3	5,772,905		Chou	6/30/1998	
	C4	6,309,580	B1	Chou	10/30/2001	
	C5	6,334,960	B1	Willson et al.	1/1/2002	
	C6	6,517,977	B2	Resnick et al.	2/11/2003	
	C7	6,696,220	B2	Bailey et al.	2/24/2004	
	C8	2004/0007799	A1	Choi et al.	1/16/2004	
	C9	2004/0021254	A1	Sreenivasan et al.	2/5/2004	
	C10	2004/0021866	A1	Watts et al.	2/5/2004	
	C11	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	C12	2002/0177319	A1	Chou	11/28/2002	
	C13	2003/0215577	A1	Willson et al.	11/20/2003	
	C14	2004/0008334	A1	Sreenivasan et al.	1/15/2004	
	C15	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
	C16	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
	C17	6,646,662	B1	Nebashi et al.	11/11/2003	
	C18	6,778,094	B1	Whitesides et al.	8/17/2004	

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	C20	2002/0132482	A1	Chou	9/18/2002	
	C21	2002/0167117	A1	Chou	11/14/2002	
	C22	6,482,742	B1	Chou	11/19/2002	
	C23	2003/0080471	A1	Chou	5/1/2003	
	C24	2004/0036201	A1	Chou et al.	2/28/2004	
	C25	2004/0182041	A1	Jeong et al.	9/30/2004	
	C26	6,828,244	B2	Chou	12/7/2004	
	C27	6,809,356	B2	Chou	10/28/2004	
	C28	2004/0197843	A1	Chou et al.	10/7/2004	
	C29	2004/0156108	A1	Chou et al.	8/12/2004	
	C30	2004/0137734	A1	Chou et al.	7/15/2004	
	C31	2004/0131718	A1	Chou et al.	7/8/2004	
	C32	2004/0118809	A1	Chou et al.	6/24/2004	
	C33	2004/0046288	A1	Chou	3/11/2004	
	C34	2003/0080472	A1	Chou	5/1/2003	
	C35	2003/0034329	A1	Chou	2/20/2003	
	C36	2002/0042027	A1	Chou et al.	4/11/2002	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				APPLICATION NUMBER	10/776,881	
				FILING DATE	02/11/2004	
				FIRST NAMED INVENTOR	Willson et al.	
				Group Art Unit	1762	
				Examiner Name	Unassigned	
Attorney Docket Number	PA84-26D27					
Sheet	4	of	7			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Kind Code ³ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
		Office	Number ²					
EC	C47	JP	02-92803		Kurikawa et al.	4/3/1990		
	C48	JP	02-24848		Kamio	1/28/1990		
	C49	WO	01/47003		Steiner et al.	6/28/2001		
	C50	WO	02/07199		Chou	1/24/2002		
	C51	WO	2004/114016		Chou et al.	12/29/2004		
	C52	WO	99/05724		Chou et al.	2/4/1999		
	C53	WO	03/010289		Chou et al.	2/6/2003		
	C54	WO	03/079416		Chou	9/26/2003		
	C55	WO	03/099536		Chou et al.	12/4/2003		

Examiner Signature		Date Considered	9/29/07
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				APPLICATION NUMBER	10/776,881
				FILING DATE	02/11/2004
				FIRST NAMED INVENTOR	Willson et al.
				Group Art Unit	1762
				Examiner Name	Unassigned
Sheet 5 of 7				Attorney Docket Number	PA84-26D27

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cita No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

EC	C56	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
	C57	Choi et al., Design of Orientation Stages for Step and Flash Imprint Lithography, Precision Engineering, pp. 192 - 199, 1/1/2001	
	C58	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	C59	Chou et al., Imprint Lithography with 25-Nanometer Resolution, Science Vol. 272, pp. 85 - 87, 4/5/1996	
	C60	Chou et al., Imprint Lithography with Sub-10 nm Feature Size and High Throughput, Microelectronic Engineering 35, pp. 237 - 240, 1/1/1997	
	C61	Halsma et al., Mold-assisted Nanolithography: A Process for Reliable Pattern Replication, J. Vac. Sci. Technol. B, pp 4124 - 4128, 11/1/1996	
	C62	Chou et al., Imprint of Sub-25 nm Vias and Trenches in Polymers, Appl. Phys. Lett. 67 (21), 11/20/1995	
	C63	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003	
✓	C64	Chou et al., Lithographically Induced Self-assembly of Periodic Polymer Micropillar Arrays, J. Vac. Sci. Technol. B 17 (6), pp. 3197 - 3202, 11/1/1999	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				APPLICATION NUMBER	10/776,881
				FILING DATE	02/11/2004
				FIRST NAMED INVENTOR	Willson et al.
				Group Art Unit	1762
				Examiner Name	Unassigned
Sheet	6	of	7	Attorney Docket Number	PA84-26D27

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

EC	C65	Colburn et al., Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning, Proc. Of SPIE, vol. 3676, 3/1/1999	
	C66	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
	C67	Translation of Japanese Patent 02-02603	
	C68	Translation of Japanese Patent 02-24848	
	C69	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Vol. 417, (June 2002), pp. 835-837, 6/1/2002	
	C70	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996	
	C71	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
	C72	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology, Vol. B. 19(6), 11/1/2001	
	C73	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	

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				APPLICATION NUMBER	10/776,881
				FILING DATE	02/11/2004
				FIRST NAMED INVENTOR	Willson et al.
				Group Art Unit	1762
				Examiner Name	Unassigned
				Attorney Docket Number	PA84-26D27
Sheet	7	of	7		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Citation No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EL	C74	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
EL	C75	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

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10/776,881

02/11/2004

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1762

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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/776,881
		Filing Date	02/11/2004
		First Named Inventor	Willson et al.
		Group Art Unit	1762
		Examiner Name	Unassigned
		Attorney Docket Number	PA84-26D27
Sheet	3	of	3

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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EC	B4	Office Action from United States Patent Application 09/905,718; Dated December 22, 2004.	

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